

GLOBAL ACADEMY OF TECHNOLOGY, BENGALURU
(An Autonomous Institute, affiliated to VTU, Belagavi)

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Fifth Semester B.E. Degree Examination, January 2025

Research Methodology and IPR

Time: 3 hrs.

Max. Marks: 100

Note: Answer any Five full questions, choosing ONE full question from each module.

Module - 1

- 1 a. What is research? List and explain the characteristics of engineering research. (10 Marks)
- b. Explain briefly the concepts of research cycle with a flow diagram. (10 Marks)

OR

- 2 a. Write a short note on (12 Marks)
 - i. Applied and fundamental research
 - ii. Qualitative and quantitative research.
- b. What is plagiarism? How plagiarism can be detected using online tools? (08 Marks)

Module - 2

- 3 a. What is literature review? Discuss in detail importance of the review of literature. (10 Marks)
- b. List and explain the methods of data collection. (10 Marks)

OR

- 4 a. Summarize the literature review functions in research work and state the way in which it can help research. (10 Marks)
- b. What are the steps involved to conduct literature review for research and explain each of them briefly. (10 Marks)

Module - 3

- 5 a. What is the importance of academic writing? List the basic rules of academic writing. (10 Marks)
- b. Explain the steps involved in writing conference paper. (10 Marks)

OR

- 6 a. What are citations? Explain briefly the importance of citations. (10 Marks)
- b. Explain briefly the impact of title and key words on citations. (10 Marks)

Module - 4

- 7 a. What is patent? List and explain the elements of patentability. (10 Marks)
- b. List and explain briefly the registration process to file a patent in India. (10 Marks)

OR

- 8 a. What are intellectual property right? List and explain the different types of Intellectual property rights. (14 Marks)
- b. Explain briefly the restoration of lapsed patent in India. (06 Marks)

Module - 5

- 9 a. Briefly explain the procedure for writing literature review using standard publication. (10 Marks)
- b. Briefly explain (10 Marks)
- i. Popular resources
 - ii. Scholarly resources
 - iii. Primary sources
 - iv. Secondary sources.

OR

- 10 a. Explain briefly how open access content is different from subscribed content. (05 Marks)
- b. List and explain different types of citation style. (10 Marks)
- c. List the difference between bibliographies and references. (05 Marks)

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